



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/599,736	10/06/2006	Erwin Wolf	A 92 762	3414
366/08 7590 04/13/2009 GUIDRUN E. HUCKETT DRAUDT SCHUBERTSTR. 15A WUPPERTAL, 42289 GERMANY				
EXAMINER				
YABUT, DANIEL D				
ART UNIT		PAPER NUMBER		
3656				
MAIL DATE		DELIVERY MODE		
04/13/2009		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/599,736

Applicant(s)

WOLF, ERWIN

Examiner

DANIEL YABUT

Art Unit

3656

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 March 2009.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 22-42 is/are pending in the application.
4a) Of the above claim(s) 26-28, 34-39 and 41 is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 22-25, 29-33, 40 and 42 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 06 October 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 10/6/2006
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Species II in the reply filed on 3/5/2009 is acknowledged. The traversal is on the ground(s) that the Examiner has not identified any prior art that would anticipate or make obvious the claimed subject matter of claims 22-24 and 29.

The inventions listed as Species I-IV do not relate to a single general concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the common technical feature in all groups is an actuator having a wobble plate that is able to move on a circular path for performing a wobbling movement. This feature cannot be a special technical feature under PCT Rule 13.2 because the feature is shown in the prior art. US Patent 1,682,788 teaches the use of a wobble plate being driven by an actuating device substantially claimed in claims 22-24 and 29 and further indicates that this feature could be applied to other actuating devices. The reference specifically suggests using this type feature for pumps.

As such, **claims 22-25, 29-32, 33, 40 and 42** has been examined herein. The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. **Claim 22** is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "essentially" in **claim 22** is a relative term which renders the claim indefinite. The term "essentially" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. Thus, the limitation "essentially unable to rotate" is unclear.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. **Claims 22-25, 29** are rejected under 35 U.S.C. 102(b) as being anticipated by Fukaya, US Patent 5,484,345.

Fukaya discloses an actuator (Fig. 1) comprising a(n):

Re claim 22

- Drive motor (1)
- Reduction gear connected to the drive motor (Fig. 4; C4 / L9-10)
- Housing (15)
- First wobble plate (at 12)
- First driven wheel (10) having a toothing (at 10) interacting with the first wobble plate (C4 / L56-60, L64-66)
- Guide device for the first wobble plate (near 11)
- First wobble plate is secured by the guide device against rotation relative to the housing (C4 / L64-66) and is able to move on a circular path for performing a wobbling movement (C5 / L55-58).
- Guide device comprises a guide arm (near 12a) and a radial guide (near 16).
- Guide arm is connected to the first wobble plate and the first wobble plate and the guide arm form a unitary part (Fig. 3)
- Guide arm is secured by the radial guide so as to be slidable in a radial direction relative to the circular path (C6 / L10-12) and so as to be essentially unable to rotate.

Re claim 23

- First eccentric (at 11) that drives the first wobble plate (C4 / L64-66, wherein the first eccentric comprises an eccentrically circulating bearing pin (11) that engages a bearing opening (near 11; Fig. 3) of the first wobble plate.

Re claim 24

- Worm gear (4) that is connected to the drive motor and drives the first eccentric.

Re claim 25

- Guide arm of the first wobble plate is a swivel arm (at 12a; C6 / L10-12) having a radially outwardly positioned free end that is supported on a swivel support (near 16) of the radial guide.

Re claim 40

- Fastening screws (9, 1839) that penetrate the housing of the reduction gear across at least approximately an entire thickness of the housing (Fig. 4), wherein the fastening screws are provided for screwing the housing to a component to be driven by the actuator (C7 / L9-22)

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 42 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fukaya, US Patent 5,484,345.

Fukaya discloses all of the claim limitations, see above, including at least two of the fastening screws are arranged on a line that is positioned to an axis of rotation of the drive motor or of a drive worm of the drive motor (Fig. 9), wherein the first driven wheel is **preferably** positioned between said at least two fastening screws (Fig. 1, Fig. 4).

However, as to claim 42, Fukaya does **not** expressly disclose the at least two of the fastening screws are arranged on a line that is positioned at an angle of at least **approximately 45 degrees** to an axis of rotation of the drive motor or of a drive worm of the drive motor.

Regarding **claim 42**, it would have been obvious to one having ordinary skill in the art at the time of the invention to provide the at least two of the fastening screws are arranged on a line that is positioned at an angle of at least **approximately 45 degrees** to an axis of rotation of the drive motor or of a drive worm of the drive motor, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233. See MPEP 2144.05.

5. **Claims 22-25, and 29-32** are rejected under 35 U.S.C. 103(a) as being unpatentable over Blevans, US Patent 2,690,894 in view of Janette, US Patent 1,682,788.

Blevans discloses an actuator (Fig. 1) comprising a(n):

Re claim 22

- Reduction gear (near 28) connected to the drive (near 32)
- Housing (Fig. 2)
- First wobble plate (50)
- First driven wheel (28) having a toothing (at 28) interacting with the first wobble plate (C3 / L50-54, L60-64; C4 / L48-57)
- Guide device for the first wobble plate (near 52, 50; Fig. 2)
- First wobble plate is secured by the guide device against rotation relative to the housing (near 52) and is able to move on a circular path for performing a wobbling movement (C4 / L48-57).
- Guide device comprises a guide arm (near 50; Fig. 2) and a radial guide (near 43).
- Guide arm is connected to the first wobble plate and the first wobble plate and the guide arm form a unitary part (Fig. 2)
- Guide arm is secured by the radial guide so as to be slidable in a radial direction (see Fig. 3-5) relative to the circular path and so as to be essentially unable to rotate.

However, as to **claim 1**, Blevans does **not** expressly disclose the use of a drive motor.

Janet teaches the use of a drive motor (3) for the purpose of driving the apparatus to provide a satisfactory operation of the device (pg. 1 / L67-73).

Regarding **claim 1**, it would have been obvious to one having ordinary skill in the art at the time of the invention to provide a drive motor, as taught by Janette, in the device of Blevans for the purpose of driving the apparatus to provide a satisfactory operation of the device.

Blevans as modified above further discloses the following:

Re claim 23

- First eccentric (at 51) that drives the first wobble plate, wherein the first eccentric comprises an eccentrically circulating bearing pin (51) that engages a bearing opening (near 51) of the first wobble plate.

Re claim 24

- Worm gear (29) that is connected to the drive motor and drives the first eccentric.

Re claim 25

- Guide arm of the first wobble plate is a swivel arm (see Figs. 3-5) having a radially outwardly positioned free end that is supported on a swivel support (near 43) of the radial guide.

Re claim 29

- Free end of the guide arm is forcibly guided on a circular path synchronously to the wobbling movement carried out by of the first wobble plate on the circular path (C4 / L48-57).

Re claim 30

- Second eccentric (at 52) having an eccentrically circulating bearing pin (52) that engages a bearing opening (at 52) of the free end and forcedly guides the free end of the guide arm.

Re claim 31

- First and second eccentrics are arranged on opposite sides of the worm gear and are driven by the worm gear (at 51, 52 in Fig. 2)

Re claim 32

- First and second eccentrics are staggered in an axial direction of the worm gear on one side of the worm gear and are driven by the worm gear (see 51, 52 in Fig. 2).

Re claim 33

- Guide arm extends in two oppositely oriented radial directions (at 51, 52; Fig. 2) and has a first free end (near 51) and a second free end (near 52) opposite one another, wherein the guide arm is arranged between the first and second eccentrics and the first free end interacts with the first eccentric and the second free end interacts with the second eccentric and the first and second free ends are forcibly guided on the first and second eccentrics (C4 / L48-57).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL YABUT whose telephone number is (571)270-5526. The examiner can normally be reached on Monday through Friday from 9:00 A.M. to 5:00 P.M. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard W. Ridley can be reached on (571) 272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/DANIEL YABUT/
Examiner, Art Unit 3656
4/8/2009

/Marcus Charles/
Primary Examiner, Art Unit 3656